

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
11 November 2004 (11.11.2004)

PCT

(10) International Publication Number
WO 2004/096231 A3

(51) International Patent Classification⁷: A61K 31/5415,
A61P 25/28, 25/16, 25/02

(21) International Application Number:
PCT/EP2004/005183

(22) International Filing Date: 23 April 2004 (23.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03291024.2 25 April 2003 (25.04.2003) EP

(71) Applicant (for all designated States except US): NEURO
3D [FR/FR]; 130, rue de la Mer Rouge, F-68200 Mulhouse
(FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): CALLIZOT, Noëlle
[FR/FR]; 14, rue de Lamproie, F-67000 Strasbourg (FR).
APPERT COLLIN, Aline [FR/FR]; 58, route des Ro-
mains, F-67200 Strasbourg (FR).

(74) Agent: CABINET HIRSCH; Groupement 161, 58, Av-
enue Marceau, 75008 Paris (FR).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,
GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to the identity of the inventor (Rule 4.17(i)) for all des-
ignations

— as to applicant's entitlement to apply for and be granted
a patent (Rule 4.17(ii)) for the following designations AE,
AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE,
EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM,
ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD,
SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG,
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT,
LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
TD, TG)

— as to the applicant's entitlement to claim the priority of the
earlier application (Rule 4.17(iii)) for all designations

— of inventorship (Rule 4.17(iv)) for US only

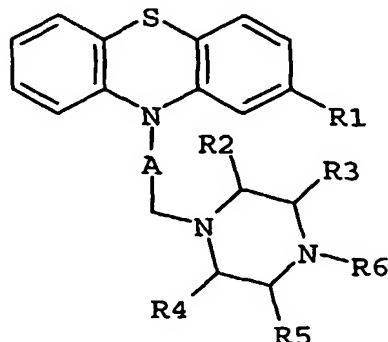
Published:

— with international search report

(88) Date of publication of the international search report:
24 March 2005

[Continued on next page]

(54) Title: USE OF PIPERAZINE PHENOTHIAZINE DERIVATIVES IN THE MANUFACTURE OF A MEDICAMENT WITH
NEUROPROTECTOR AND/OR NEUROTROPHIC EFFECTS ON CNS AND/OR PNS



(I)

(57) Abstract: This invention relates to a new use of piper-
azinephenothiazine derivatives and their pharmaceutically acceptable
salts or esters in the manufacture of a medicament with neuroprotector
and/or neurotrophic effects on CNS and/or PNS. The piperazine
phenothiazine derivatives are selected from compounds of formula (I)
wherein A represents a straight or branched alkylene chain of from 2 to
6 carbon atoms separating the nitrogen atoms linked thereto by at least
two carbon atoms; R1 represents hydrogen, halogen, lower alkyl, lower
alkoxy, lower alkanoyl, lower alkyl-mercapto, trifluoromethylmercapto,
lower alkyl-sulfonyl (preferably methylsulfonyl), perfluoroalkyl of 1
to 3 carbon atoms; R2, R3, R4 and R5 each represent methyl, ethyl or
hydrogen, R6 represents hydrogen, lower alkyl, hydroxy-lower-alkyl or
aliphatic acyloxy-lower-alkyl having 1 to 4 carbon atoms in the acyloxy
portion and 1 to 6 carbon atoms in the alkyl portion, CH₂-CH₂-O-R7
where R7 represents hydrogen, COR8 where R8 is a branched or straight chain alkyl radical of from seven to fourteen carbon atoms.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/005183

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/5415 A61P25/28 A61P25/16 A61P25/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, MEDLINE, BIOSIS, EMBASE, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | HALE M S ET AL: "LOW DOSE PERPHENAZINE AND L DOPA CARBIDOPA THERAPY IN A PATIENT WITH PARKINSONISM AND A PSYCHOTIC ILLNESS" JOURNAL OF NERVOUS AND MENTAL DISEASE, vol. 168, no. 5, 1980, pages 312-314, XP008020514 ISSN: 0022-3018 the whole document | 1-3,5,6, 10-12 |
| X | PERINI M ET AL: "BENEFIT OF FLUOPERAZINE IN DRUG-INDUCED HALLUCINATIONS DURING PARKINSON'S DISEASE MANAGEMENT" GAZZETTA MEDICA ITALIANA ARCHIVIO PER LE SCIENZE MEDICHE, vol. 148, no. 3, 1989, pages 101-104, XP008020513 ISSN: 0393-3660 abstract | 1-3,5,6, 10-12 |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

29 November 2004

Date of mailing of the international search report

22.12.2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Hornich, E

INTERNATIONAL SEARCH REPORT

Inter. Application No
PC1/EP2004/005183

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | US 3 320 245 A (MILTON WOLF ET AL) 16 May 1967 (1967-05-16) column 1, line 15 - line 22; claims; examples | 1,5,6, 10-12 |
| X | US 3 320 249 A (JACK BERNSTEIN) 16 May 1967 (1967-05-16) column 2, line 60 - line 64; claims; example 11 | 1,5,6, 10-12 |
| X | US 6 482 822 B1 (AUVIN SERGE ET AL) 19 November 2002 (2002-11-19) column 1, line 40 - line 46; example 22 | 1,5-12 |
| X | WO 99/07356 A (SANBERG PAUL RONALD ;SHYTLER ROLAND DOUGLAS (US); SILVER ARCHIE AAR) 18 February 1999 (1999-02-18) abstract; claims 1,5,6,8 | 1-6, 10-12 |
| X | EP 0 615 749 A (UNIV VIRGINIA COMMONWEALTH) 21 September 1994 (1994-09-21) abstract | 1-5,8, 10-12 |
| Y | column 5, line 51 - column 6, line 3 | 6 |
| Y | VERMA ANITA ET AL: "N-Methyl-D-aspartate receptor participation in Parkinson's disease, a neurodegenerative disorder." ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, vol. 765, 1995, page 327, XP008020512 Second International Conference; Lake George, New York, USA; July 31-August 3, 1994, Clinical and experimental aspects. 1995 New York Academy of Sciences 2 East 63rd Street, New York, New York 10021, USA ISBN: 0-89766-946-0 the whole document | 1-6, 10-12 |
| Y | US 6 057 373 A (FOGEL BARRY S) 2 May 2000 (2000-05-02) abstract column 3, line 45 - line 56 column 10, line 42 - line 46; claims | 1-6, 10-12 |
| A | "THE MERCK INDEX" 2001, MERCK & CO., INC. , XP002254640 page 3780 No. 3783: Ethopropazine | 1-6, 10-12 |
| X | WO 01/78709 A (MINERVA BIOTECHNOLOGIES CORP) 25 October 2001 (2001-10-25) page 5, line 9 - page 6, line 22 * page 25, compound G *claims 1-7,35,36,41,53,55,56; figure 3 | 1-8, 10-12 |
| | -/-- | |

INTERNATIONAL SEARCH REPORT

 Intern al Application No
 PCT/EP2004/005183

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | WO 96/04915 A (EINSTEIN COLL MED ; DAVIES PETER (US); VINCENT INEZ J (US)) 22 February 1996 (1996-02-22) abstract; claims | 1-5,7, 10-12 |
| X | GOTTLIEB G L ET AL: "Depot neuroleptics in the treatment of behavioral disorders in patients with Alzheimer's disease." JOURNAL OF THE AMERICAN GERIATRICS SOCIETY. UNITED STATES JUL 1988, vol. 36, no. 7, July 1988 (1988-07), pages 619-621, XP008026221 ISSN: 0002-8614 the whole document | 1-5,7, 10-12 |
| X | WO 00/24390 A (LAM FRED CHIU LAI ; UNIV BRITISH COLUMBIA (CA); REINER PETER B (CA)) 4 May 2000 (2000-05-04) abstract; claims 1,11,12,15,16,20,21,24,29,30 | 1-3,5,7, 8,10-12 |
| X | WO 02/22611 A (MORTIMORE MICHAEL ; KNEGTEL RONALD (GB); CHARRIER JEAN DAMIEN (GB); VE) 21 March 2002 (2002-03-21) abstract example 15 page 47, line 26 - page 48, line 31 claims 7-10 | 1,5-7, 9-12 |
| X | WO 02/083656 A (LIBERATORE ANNE-MARIE ; BIGG DENNIS (FR); ROLLAND ALAIN (FR); HARNE) 24 October 2002 (2002-10-24) page 1, lines 1-17; claims * see in particular, page 115, lines 7-11; page 119, lines 23-26; page 124, lines 12-16 * | 1,5-12 |
| X | WO 00/32175 A (PFIZER PROD INC) 8 June 2000 (2000-06-08) page 23 page 31, line 25 - line 31; table 1 claims | 1,5,7, 9-12 |
| X | WO 01/92240 A (MCDONALD ROBERT S ; MARTIN EARL V (CA); DARVESH SULTAN (CA); MAGEE) 6 December 2001 (2001-12-06) page 6, line 15 - line 19 page 20; table 1 claims 26-31; example 18 | 1,5,7, 10-12 |
| | -/-- | |

INTERNATIONAL SEARCH REPORT

Interr. al Application No
PCT/EP2004/005183

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | DAVIS J L ET AL: "PERIPHERAL DIABETIC NEUROPATHY TREATED WITH AMITRIPTYLINE AND FLUPHENAZINE" JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, vol. 238, no. 21, 1977, pages 2291-2292, XP008026211 ISSN: 0098-7484 the whole document | 1-5,8, 10-12 |
| X | MOSLEY C A ET AL: "CONTROL OF DIABETIC NEUROPATHIC PAIN BY AMITRIPTYLINE AND FLUPHENAZINE IN MILD RENAL FAILURE" KIDNEY INTERNATIONAL, vol. 21, no. 1, 1982, page 155, XP008026206 MEETING OF THE AMERICAN SOCIETY OF NEPHROLOGY, WASHINGTON, D.C., USA, NOV. 22-24, 1981. KIDNEY INT. ISSN: 0085-2538 the whole document | 1-5,8, 10-12 |
| X | GÓMEZ-PÉREZ F J ET AL: "Nortriptyline-fluphenazine vs. carbamazepine in the symptomatic treatment of diabetic neuropathy." ARCHIVES OF MEDICAL RESEARCH. MEXICO 1996 WINTER, vol. 27, no. 4, January 1996 (1996-01), pages 525-529, XP001176770 ISSN: 0188-4409 the whole document | 1-5,8, 10-12 |
| X | GOMEZ-PEREZ F J ET AL: "NORTRIPTYLINE AND FLUPHENAZINE IN THE SYMPTOMATIC TREATMENT OF DIABETIC NEUROPATHY A DOUBLE-BLIND CROSS-OVER STUDY" PAIN, vol. 23, no. 4, 1985, pages 395-400, XP008026204 ISSN: 0304-3959 the whole document | 1-5,8, 10-12 |
| X | BATTLA H ET AL: "Clinical trial of amitriptyline and fluphenazine in diabetic peripheral neuropathy." SOUTHERN MEDICAL JOURNAL. UNITED STATES APR 1981, vol. 74, no. 4, April 1981 (1981-04), pages 417-418, XP008026223 ISSN: 0038-4348 the whole document | 1-5,8, 10-12 |

-/--

INTERNATIONAL SEARCH REPORT

Intern_l Application No
PCT/EP2004/005183

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| P,X | WO 03/062232 A (SCRAS ;DOLO CHRISTINE (FR); CHABRIER DE LASSAUNIERE PIERRE (FR); H) 31 July 2003 (2003-07-31) page 17, line 10 - line 15; claims 1,7,11-13; example 14 page 5, line 7 - line 25 ----- | 1,5-12 |
| P,X | WO 03/062388 A (UNIV CALIFORNIA) 31 July 2003 (2003-07-31) paragraph '0041! page 29; claims 1-5; figure 3 ----- | 1-3,5-7, 10-12 |

INTERNATIONAL SEARCH REPORT

ational application No.
PCT/EP2004/005183

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5 (partly), 6 ,10-12 (partly)

Use of piperazine phenothiazine derivatives in the
manufacture of a medicament for treating Parkinson's disease

2. claims: 1-5 (partly), 7, 10-12 (partly)

Use of piperazine phenothiazine derivatives in the
manufacture of a medicament for treating Alzheimer's disease

3. claims: 1-5 (partly), 8, 10-12 (partly)

Use of piperazine phenothiazine derivatives in the
manufacture of a medicament for treating peripheral
neuropathy diseases

4. claims: 1-5 (partly), 9, 10-12 (partly)

Use of piperazine phenothiazine derivatives in the
manufacture of a medicament for treating amyotrophic lateral
sclerosis diseases

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/EP2004/005183

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|----|---------------------|--|--|
| US 3320245 | A | 16-05-1967 | NONE | |
| US 3320249 | A | 16-05-1967 | NONE | |
| US 6482822 | B1 | 19-11-2002 | FR 2784678 A1 AU 759958 B2 AU 5631599 A BR 9913899 A CA 2344223 A1 CN 1144799 T CZ 20011056 A3 EP 1115720 A2 WO 0017191 A2 HU 0104013 A2 JP 2003517444 T NO 20011478 A NZ 511188 A PL 347471 A1 RU 2230742 C2 US 6620840 B1 US 2004097494 A1 ZA 200103206 A | 21-04-2000 01-05-2003 10-04-2000 03-07-2001 30-03-2000 07-04-2004 16-01-2002 18-07-2001 30-03-2000 29-04-2002 27-05-2003 22-03-2001 29-08-2003 08-04-2002 20-06-2004 16-09-2003 20-05-2004 19-07-2002 |
| WO 9907356 | A | 18-02-1999 | AU 2118499 A AU 8778498 A CA 2300148 A1 EP 1011678 A1 JP 2003524573 T WO 9907356 A1 WO 9907378 A1 US 6034079 A ZA 9807182 A | 01-03-1999 01-03-1999 18-02-1999 28-06-2000 19-08-2003 18-02-1999 18-02-1999 07-03-2000 15-06-1999 |
| EP 0615749 | A | 21-09-1994 | US 5352683 A CA 2115792 A1 EP 0615749 A2 JP 3018135 B2 JP 7002671 A US 5502058 A US 5834479 A | 04-10-1994 06-09-1994 21-09-1994 13-03-2000 06-01-1995 26-03-1996 10-11-1998 |
| US 6057373 | A | 02-05-2000 | US 5866585 A AU 765522 B2 AU 2104199 A CA 2318095 A1 CN 1293573 T EP 1047436 A2 JP 2002509104 T WO 9936064 A2 | 02-02-1999 18-09-2003 02-08-1999 22-07-1999 02-05-2001 02-11-2000 26-03-2002 22-07-1999 |
| WO 0178709 | A | 25-10-2001 | AU 5359701 A CA 2404858 A1 EP 1328261 A2 JP 2003530432 T WO 0178709 A2 US 2003060487 A1 | 30-10-2001 25-10-2001 23-07-2003 14-10-2003 25-10-2001 27-03-2003 |
| WO 9604915 | A | 22-02-1996 | AU 708682 B2 | 12-08-1999 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/EP2004/005183

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|---|--|
| WO 9604915 | A | | AU 3279395 A CA 2196529 A1 EP 0778773 A1 WO 9604915 A1 JP 11506414 T | 07-03-1996 22-02-1996 18-06-1997 22-02-1996 08-06-1999 |
| WO 0024390 | A | 04-05-2000 | US 2002037843 A1 AU 762593 B2 AU 1112800 A CA 2348019 A1 EP 1123090 A1 JP 2002528411 T WO 0024390 A1 US 6660725 B1 | 28-03-2002 26-06-2003 15-05-2000 04-05-2000 16-08-2001 03-09-2002 04-05-2000 09-12-2003 |
| WO 0222611 | A | 21-03-2002 | AU 9079501 A CA 2418720 A1 EP 1317454 A2 JP 2004509120 T WO 0222611 A2 US 2002058630 A1 | 26-03-2002 21-03-2002 11-06-2003 25-03-2004 21-03-2002 16-05-2002 |
| WO 02083656 | A | 24-10-2002 | FR 2823208 A1 CA 2443403 A1 CZ 20033054 A3 EP 1379514 A2 WO 02083656 A2 HU 0303799 A2 JP 2004531526 T NO 20034524 A | 11-10-2002 24-10-2002 12-05-2004 14-01-2004 24-10-2002 01-03-2004 14-10-2004 29-10-2003 |
| WO 0032175 | A | 08-06-2000 | AU 1290700 A BG 105599 A BR 9915940 A CA 2350597 A1 CN 1329493 T EA 3326 B1 EE 200100302 A EP 1480042 A2 EP 1137418 A2 HR 20010414 A1 HU 0201215 A2 WO 0032175 A2 ID 29061 A JP 2002531396 T NO 20012737 A PL 348310 A1 TR 200101549 T2 US 2002048271 A1 ZA 200104210 A | 19-06-2000 28-02-2002 11-09-2001 08-06-2000 02-01-2002 24-04-2003 15-08-2002 24-11-2004 04-10-2001 30-06-2002 28-08-2002 08-06-2000 26-07-2001 24-09-2002 09-07-2001 20-05-2002 21-11-2001 25-04-2002 24-02-2003 |
| WO 0192240 | A | 06-12-2001 | CA 2310205 A1 AU 6717201 A WO 0192240 A1 | 29-11-2001 11-12-2001 06-12-2001 |
| WO 03062232 | A | 31-07-2003 | FR 2835254 A1 WO 03062232 A1 | 01-08-2003 31-07-2003 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

Inter-

I Application No

PCT/EP2004/005183

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|----------------------------|---------------------|
| WO 03062388 | A | 31-07-2003 | WO 03062388 A2 | 31-07-2003 |
| | | | US 2003229082 A1 | 11-12-2003 |
